

U.S. Department of Labor Mine Safety and Health Administration

Protecting Miners' Safety and Health Since 1978



ELECTRICAL SAFETY ALERT

In the last two months there were three electrical incidents at underground coal mines that resulted in miners being transported to the hospital. The first incident occurred when an electrician was shocked and burned while attempting to repair a damaged continuous mining machine cable, with the circuit breaker closed and the cable coupler connected to the receptacle. The second miner was shocked while hanging a feeder cable during a belt and power move. The cable, mine floor, and the miner's gloves were wet. The feeder cable's outer jacket and insulation were damaged. The third miner was shocked while handling a roof bolting machine cable. The cable, mine floor, and the miner's gloves were damp. The cable had a small hole in the outer jacket and a damaged conductor.



Best Practices

- Do not perform any electrical work until the circuit is deenergized, locked, and tagged out.
- Be knowledgeable of the hazards of electricity and NEVER touch any ungrounded electrical component until you are sure it is deenergized.
- Identify all hazards then develop and follow a safe plan to perform the work to ensure the safety of all miners who are involved in the task. Conduct electrical measurements to test for unwanted electrical power, especially in wet or muddy areas.
- Always handle deenergized cable instead of energized cable, or wear properly rated and well maintained electrical gloves when handling energized cables.
- Conduct complete and thorough examinations on all electrical equipment to include handover-hand examinations of deenergized electrical cables.
- Protect electrical cables from damage by mobile equipment and falling roof. When cable
 damage is suspected, immediately notify a qualified electrician so a potentially dangerous
 condition can be corrected.
- Install sensitive ground fault relays with instantaneous trip setting of 125 mA or less on all face equipment. Use trailing cables with a grounded metallic shield.